

32

Date: Wednesday, 7/11/2007 2:49:28 PM
 User: Kim Johnston

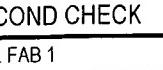
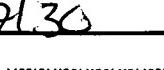
Process Sheet

| | | | |
|-----------------------|---|------------------|------------------|
| Customer | CU-DAR001 Dart Helicopters Services | Drawing Name | DOUBLER ASSEMBLY |
| Job Number | 33494B | | |
| Estimate Number | 10294 | | |
| P.O. Number | N/A | Part Number | D3220041 |
| This Issue | 7/11/2007 | S.O. No. | N/A |
| Prsht Rev. | NC | Drawing Number | D3220 REV A1 |
| First Issue | N/A | Project Number | N/A |
| Previous Run | 30158B | Drawing Revision | A1 |
| Written By | | Material | N/A |
| Checked & Approved By | 7/11/2007 | Due Date | 8/5/2007 |
| Comment | Est Rev A New Issue 05-11-06 JLM Est: B 06.11.15 waterjet EC | Qty: | 12 |
| Um: | 10 | Each | |

Additional Product

Job Number:



| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|--|
| 1.0 | M2024T3S050 | 2024-T3 .050 sheet |
| | |  |
| | | Comment: Qty.: 0.7266 sf(s)/Unit Total : 7.2660 sf(s) Material: 2024-T3 (QQ-A-250/4) 0.050" thick (M2024T3S.050) Identify for D3220-1 Batch: M103321 |
| 2.0 | WATER JET | FLOW WATER JET |
| | |  |
| | | Comment: FLOW WATER JET 1-Cut D3220-1 as per Dwg D3220 Dwg Rev: A1 Prog Rev: A1 |
| | | 2-Deburr if necessary  |
| 3.0 | QC2 | INSPECT PARTS AS THEY COME OFF MACHINE |
| | |  |
| | | Comment: INSPECT PARTS AS THEY COME OFF MACHINE  |
| 4.0 | QC8 | SECOND CHECK |
| | |  |
| | | Comment: SECOND CHECK  |
| 5.0 | SMALL FAB 1 | SMALL & MEDIUM FAB RESOURCE 1 |
| | |  |
| | | Comment: SMALL & MEDIUM FAB RESOURCE 1  |
| | | 1-Deburr  |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Wednesday, 7/11/2007 2:49:29 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER ASSEMBLY

Job Number: 33494B

Part Number: D3220041

Job Number:



(P10)

Seq. #:

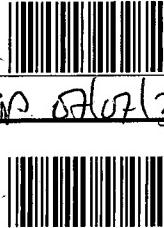
Machine Or Operation:

Description :

2-C'sink D3220-1 as per Dwg D3220

6.0 QC5

INSPECT WORK TO CURRENT STEP



(XII)

Comment: INSPECT WORK TO CURRENT STEP

7.0 HAND FINISHING1

HAND FINISHING RESOURCE #1



(XII)

Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

(S1)

07-08-01

8.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



(XII)

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

9.0 MS20426AD34

RIVET



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick:

Qty Part Number Description Batch

8 MS20426AD3-4 Rivet M102404

(P2)

10.0 MS21059L4

Nutplate



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick:

Qty Part Number Description Batch

4 MS21059L4 Nutplate M102909

(P2) 7/8/01 (11)

11.0 SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3220-041 doubler as per Dwg D3220

mlo7/08/02 X11

12.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

(S2) 07/08/03 X V

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: Date: 07/09/07
 QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|-------------------------|------|--|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| 07/09/07 <i>S.C.</i> | | One part. Counter sink for rivet. is too deep R.C. Human Error | <i>✓</i> <i>05/09/07</i> | Scrap and no replace | <i>✓</i> <i>01/09/07</i> | <i>✓</i> <i>07/09/07</i> | <i>✓</i> <i>02/09/07</i> | <i>✓</i> <i>02/09/07</i> |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Wednesday, 7/11/2007 2:49:29 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER ASSEMBLY

Job Number: 33494B

Part Number: D3220041

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

SP 07/08/07 (AK)

14.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

SP 07/08/07

Job Completion



SP 07/08/07

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

| | | |
|-----------------------|--------------|-------------|
| DART AEROSPACE LTD | Work Order: | 33494B |
| Description: Doubler | Part Number: | D3220-1 |
| Inspection Dwg: D3220 | Rev: A1 | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

| | | | | | |
|--------------|-----------|-------------|-----------|---------------------|-----|
| Measured by: | <u>SM</u> | Audited by: | <u>WS</u> | Prototype Approval: | N/A |
| Date: | 07/07/29 | Date: | 07/07/30 | Date: | N/A |

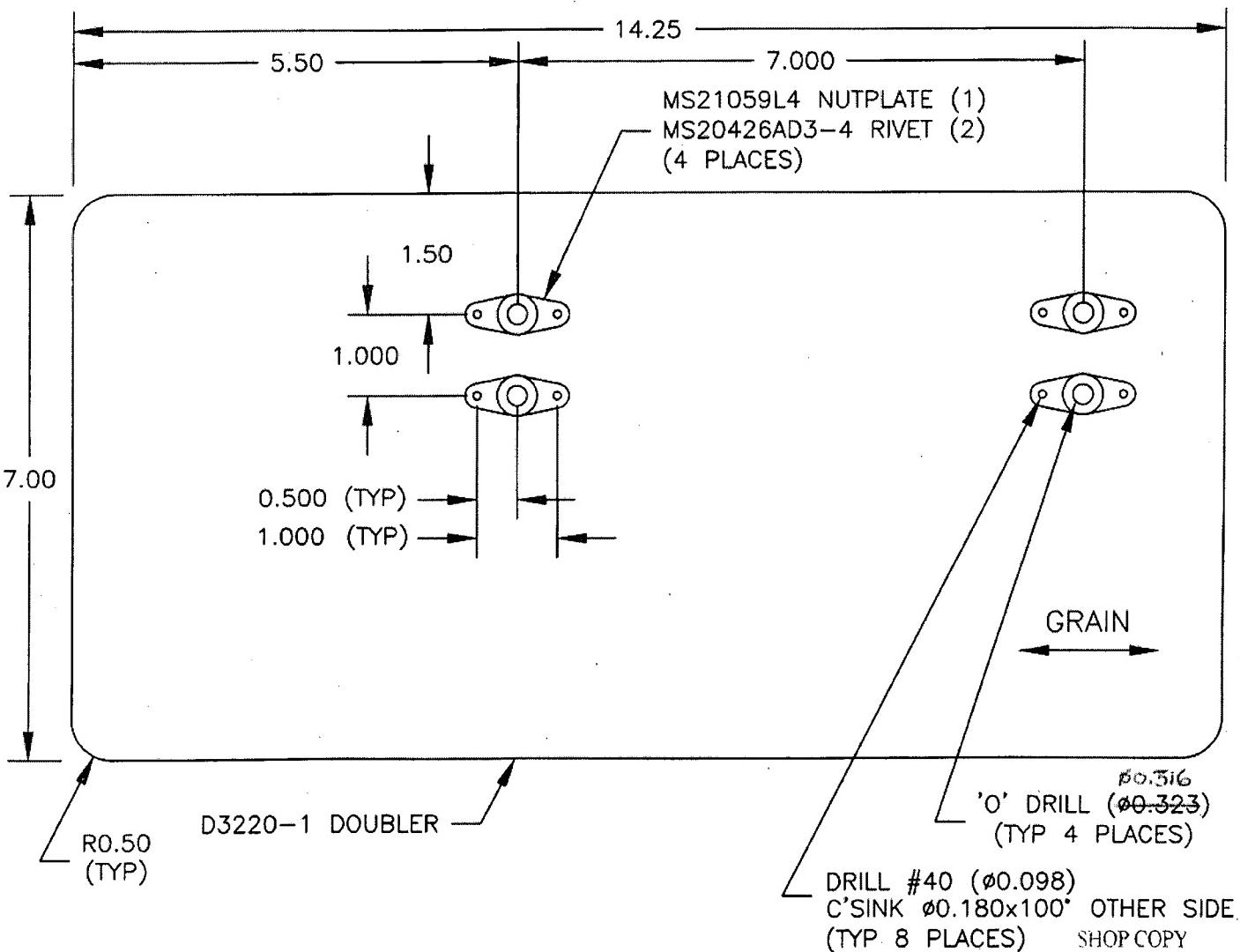
| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|------------------|---|
| A | 04.02.27 | New Issue | P/O D412-698-013 | KJ/RF <i>[Signature]</i> <i>[Signature]</i> |



COPY ISD
100

| | | |
|----------|----------------|---|
| DESIGN | DRAWN BY | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA |
| CHECKED | APPROVED | DRAWING NO. D3220 REV. A SHEET 1 OF 2 |
| DATE | | TITLE SCALE |
| 03.10.16 | | DOUBLER 1:2 |
| A | 03.10.16 | NEW ISSUE |
| A1 | GP/HF 03.11.13 | CORRECTED Dim. |

RELEASED
03.11.14 HF



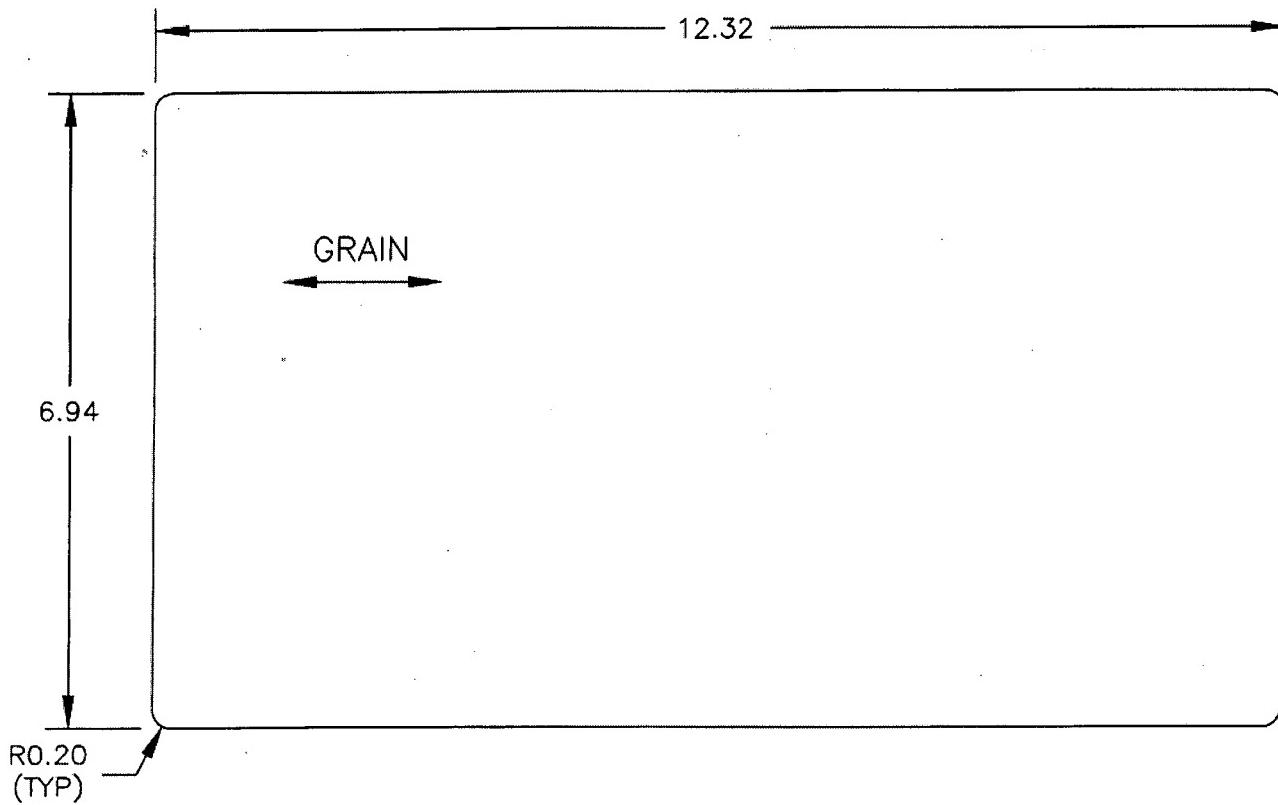
D3220-041 (SHOWN) / -042 (OPPOSITE) DOUBLER ASSEMBLY (D3220-1 DOUBLER)

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK (REF DART SPEC. M2024T3S.090)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

INCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 33494

DART

| | | |
|------------------|-----------------------|---|
| DESIGN # | DRAWN BY <i>DP</i> | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA |
| CHECKED <i>#</i> | APPROVED <i>#</i> | DRAWING NO. D3220 REV. A SHEET 2 OF 2 |
| DATE 03.10.16 | TITLE DOUBLER | SCALE 1:2 |

RELEASED
03.11.14 *#***D3220-3 DOUBLER**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
(REF DART SPEC. M2024T3S.050)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 33494B